



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,354	09/29/2003	Jung-Nam Im	00722-20474.US.CIP	5792
20551 7590 10/18/2007 THORPE NORTH & WESTERN, LLP. 8180 SOUTH 700 EAST, SUITE 350 SANDY, UT 84070			EXAMINER GETTMAN, CHRISTINA DANIELLE	
			ART UNIT 3734	PAPER NUMBER
			MAIL DATE 10/18/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/675,354

Applicant(s)

IM ET AL.

Examiner

Christina D. Gettman

Art Unit

3734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 8, 10-15, 20, 22-27, 32 and 34-40 is/are pending in the application.
- 4a) Of the above claim(s) 37 and 38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8, 10-15, 20, 22-27, 32, 34-36, 39 and 40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Claims 37 and 38 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in a telephone call made to Todd Adler on October 5, 2006.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8, 10-15, 20, 22-27, 32, 34-36, and 39-40 are rejected under 35 U.S.C. 103(a) as obvious over Liu et al. (U.S. Patent No. 5,626,611). Liu et al. disclose a monofilament suture prepared by co-extrusion (col. 4, line 63), a first polymer with a higher Young's modulus than a second polymer (col. 2, line 65 and U.S. Patent No. 4,052,988), the first polymer having 50 to 90% amount by volume and the second polymer having 10 to 50% amount by volume (col. 2, line 55), the first and second polymers being made of a homopolymer or a copolymer that are listed in the claims of the application (col. 3, line 15-37; dioxanone), the first polymer having a higher melting point than the second polymer (col. 2, line 65 and U.S. Patent No. 4,444,927), the two polymers forming a sea/island suture and a sheath/core suture (Fig. 1A), and the steps of making the monofilament suture (col. 4, line 63 to col. 6, line 13). The reference

Art Unit: 3734

discloses polyglycolide as an example for the material used for the core portion and polydioxanone for the material used for the shell portion. Liu et al. also disclose that the maximum diameter of the core is 0.8 mm and the maximum thickness of the shell is 0.5 mm. After calculating the amount percentage of each polymer, the percentages fit the range as stated in the application. Liu et al. also disclose altering the concentration of two polymers (col. 4, line 15-20). It would, therefore, have been obvious to have picked the correct concentrations of the polymers in order to obtain the desired Young's modulus difference between the two polymers.

Response to Arguments

Applicant's arguments filed August 3, 2007, have been fully considered but they are not persuasive. Applicant argues that Liu et al. do not teach all of the limitations of the independent claims. Applicant argues that the list of material in Liu et al. provide the same materials as that of the core but providing no suggestion as to how to combine them. Applicant further argues that one of ordinary skill would not have been able to come up with the combination of elements to obtain a core and a shell having a Young's Modulus of 3.0 or less, having a difference of Young's Modulus between the two materials of 0.3 GPa or more, and that the core has a lower Young's Modulus than does the shell. Applicant argues that the Liu et al. teach nothing with regards on how to construct the polymeric structure and only provides a list of materials. Examiner respectfully disagrees.

Examiner refers Applicant back to col. 3, lines 15-36, wherein Liu et al. disclose that the materials listed are used to form the core and shell of a suture (note that Liu et

Art Unit: 3734

al. disclose using dioxanone as a material). Liu et al. disclose that the monomers picked could either be copolymers, as recited in the claims. It is within the common knowledge of one skilled in the art to have experimented with the different types of materials in order to obtain the most advantageous combination of core and shell materials. Commonly known testing and manufacturing techniques could be applied in this instance to form the desirable product, such as a shell having a higher elastic modulus than the core. Although some of the examples set forth in Liu et al. contain glycolide, the embodiments are not confined to just using glycolide in the suture material. It is common knowledge in the art to manufacture materials differently, whether they are combined with another material, etc., to obtain a desirable strength, or Young's Modulus. For instance, plastic can be manufactured in several different ways in order to vary the strength to be used in products such as cups, picture frames, artificial body parts, braces, etc. Another example of how a material's strength can be altered by the manufacturing process is metal. Metal is used has different strengths such as staplers, cars, jewelry, springs, etc. As is shown by these examples, it is well-known and common knowledge to manufacture materials in different ways to obtain the desired results. As is the case with Liu et al., dioxanone could be chosen as the suture core and shell material and both have a Young's Modulus of 3.0 GPa or less, a difference between the Young's Moduli of 0.3 GPa or less, and have the shell Young's Modulus be higher than the core Young's modulus.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christina D. Gettman whose telephone number is 571-272-3128. The examiner can normally be reached on Monday-Friday 7:15 am to 3:45 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hayes can be reached on 571-272-4959. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3734

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CG



Christina Gettman
Art Unit 3734
571-272-3128



MICHAEL J. HAYES
SUPERVISORY PATENT EXAMINER